

OPIOIDS

TRENDS AND CURRENT STATUS IN MASSACHUSETTS

Fatal Overdoses, Hospital Discharges, Emergency Department Visits, & Trends in Treatment Services

Massachusetts Department of Public Health
Center for Health Information, Statistics, Research & Evaluation, and the Bureau of Substance Abuse Services

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DATA HIGHLIGHTS

- Poisonings, which include drug overdoses, are the leading cause of injury death in Massachusetts, surpassing motor vehicle injury deaths.
- 68% of poisoning fatalities in 2001 were associated with opioids.
- From 1999 to 2001, opioid-related fatal overdose rates increased 48%; hospitalization rates increased 38%.
- Total charges for opioid-related hospitalizations exceeded \$120 million in 2001.

WHAT ARE OPIOIDS?

The term “opioid” designates a class of drugs derived from opium or manufactured synthetically with a chemical structure similar to opium. Heroin is a naturally derived opioid. Other opioids such as oxycodone (Oxycontin®), morphine, meperidine, methadone, codeine and others, are used therapeutically for the management of pain and other conditions. These products may be diverted from pharmaceutical purposes and used illicitly.

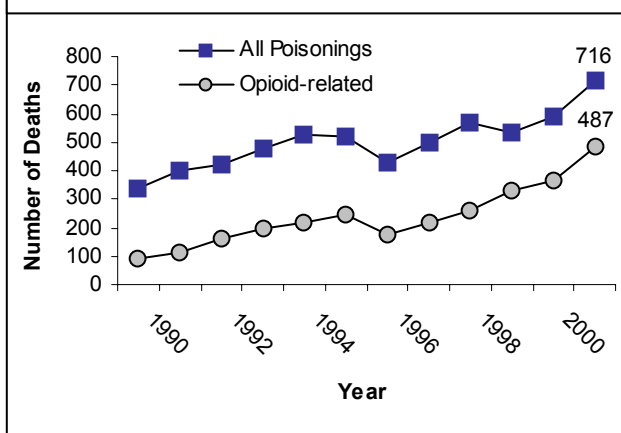
OPIOID-RELATED FATAL OVERDOSES

MAGNITUDE AND TRENDS

- Poisonings are the leading cause of injury death among Massachusetts residents; 68% of these deaths in 2001 were opioid-related.
- Opioid-related poisoning deaths as a proportion of all poisoning deaths increased from 28% in 1990 to 68% in 2001.
- In 2001, deaths due to opioid-related overdoses (n=487) were more than 5 times the number of deaths in 1990 (n=94).
- Opioid-related death rates¹ increased an average of 15% per year between 1990 and 1998, and an average of 23% between 1999 and 2001; the opioid-related death rate was 1.6 per 100,000 residents in 1990 and 7.7 deaths per 100,000 in 2001.

¹ Due to a change in coding procedures from 1998 to 1999, the data was examined in two distinct periods; from 1990-1998, and 1999 to 2001.

Figure 1. Poisoning and Opioid-Related Fatal Overdoses, MA Residents, 1990-2001



Source: Registry of Vital Records and Statistics, MDPH.

OPIOID-RELATED FATAL OVERDOSES *(continued)*

AGE GROUPS

- Between 1990 and 2001, rates increased for both males and females and among age groups between ages 15 and 54.
- In 2001, individuals between the ages of 35 and 44 experienced the highest opioid-related fatal overdose rates (36 deaths per 100,000).

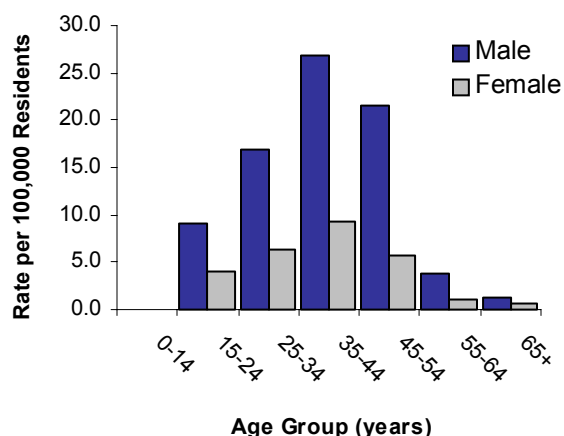
SEX

- For all age groups, opioid-related fatal overdoses were higher among males than females. In 2001, death rates due to an opioid-related overdose among males were 3 times higher than for females (11.9 deaths per 100,000 and 3.9 per 100,000, respectively).
- Opioid-related overdose rates among females increased an average of 17% per year between 1991² and 1998, and 26% per year between 1999 and 2001.
- Rates among males increased an average of 13% per year between 1990 and 1998, and an average of 23% between 1999 and 2001.

RACE/ETHNICITY

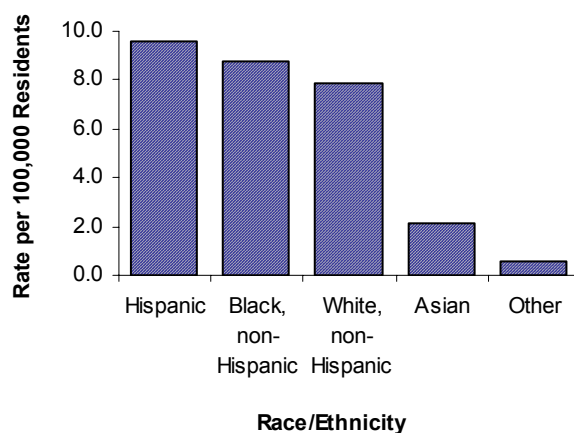
- In 2001, opioid-related fatal overdose rates were highest among Hispanic residents (9.6 deaths per 100,000), followed by blacks (8.8 per 100,000) and whites (7.9 per 100,000).
- Asian residents had lower opioid-related fatal overdose rates (2.1 deaths per 100,000) compared with other racial and ethnic groups.

Figure 2. Opioid-Related Fatal Overdose Rates by Age Group and Sex, MA Residents, 2001



Source: Registry of Vital Records and Statistics, MDPH.

Figure 3. Opioid-Related Fatal Overdose Rates by Race/Ethnicity, MA Residents, 2001



Source: Registry of Vital Records and Statistics, MDPH.

² Due to low case numbers in 1990, percentage increase was reported for rates beginning in 1991.

OPIOID-RELATED HOSPITALIZATIONS³

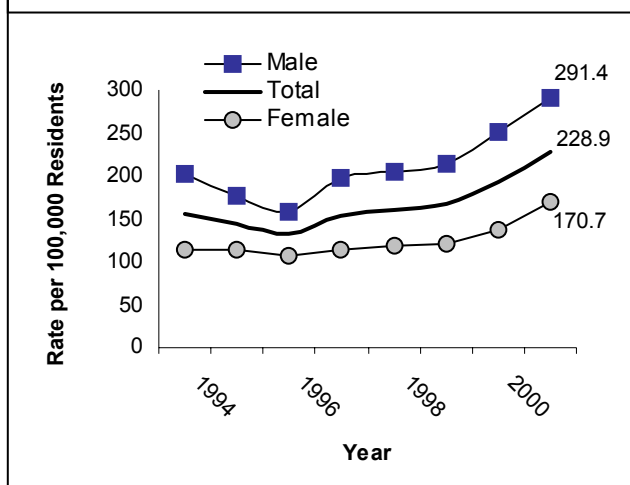
MAGNITUDE AND TRENDS

- Opioid-related hospitalization rates have risen gradually since 1996, increasing 38% from 1999 to 2001.
- In 2001, there were 14,530 opioid-related acute care hospitalizations among Massachusetts residents (228.9 per 100,000 residents).
- Total charges for opioid-related hospitalizations exceeded \$120 million in 2001.

SEX

- The rate of opioid-related hospitalizations increased 36% among males from 1999 to 2001 and 41% among females.

Figure 4. Opioid-Related Hospital Discharge Rates by Sex, MA Residents, 1994-2001

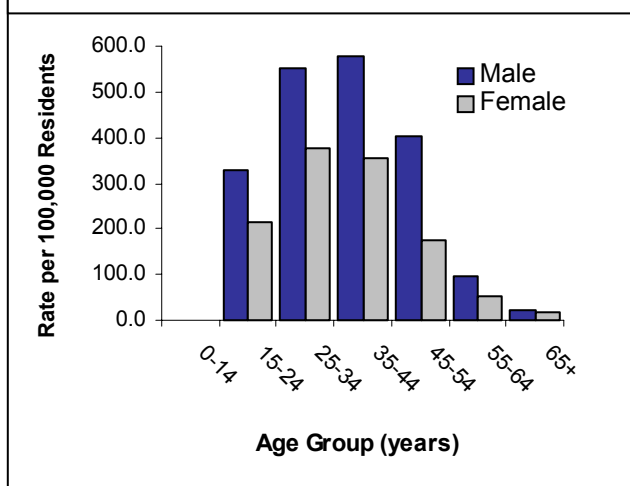


Source: MA Hospital Discharge Database, Center for Health Information, Statistics, Research and Evaluation, MDPH.

AGE GROUPS

- The most dramatic increases in opioid-related hospitalization rates between 1999 and 2001 were observed among individuals aged 15 to 24 years and 45 to 54 years, a 78% and 47% increase, respectively.
- In 2001, males of every age group age 15 and over, had higher hospital discharge rates than females. The largest variation of opioid-related hospitalization rates between males and females were among persons aged 45 to 54, with males having rates 2.3 times that of females.

Figure 5. Opioid-Related Hospital Discharge Rates by Age Group and Sex, MA Residents, 2001



Source: MA Hospital Discharge Database, Center for Health Information, Statistics, Research and Evaluation, MDPH.

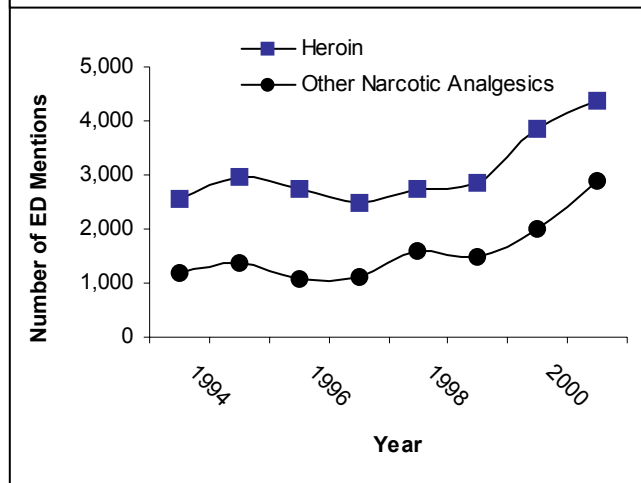
³ Represents all acute-care hospitalizations where opioid abuse or poisoning was considered as one of the diagnoses at discharge. Data excludes hospitalizations at Veterans Affairs, psychiatric, rehabilitative or long-term care facilities and deaths that occurred during hospitalization. Trends were only evaluated from 1994 onward for data quality reasons.

BOSTON AREA EMERGENCY DEPARTMENT VISITS⁴

MAGNITUDE AND TRENDS

- The estimated emergency department (ED) visits due to heroin use for the greater Boston area increased 52% from 1999 to 2001.
- For the greater Boston area, the estimated ED visits due to the use of narcotic analgesics and narcotic combinations, excluding heroin, increased 95% from 1999 to 2001.

Figure 6. ED Mentions for Heroin and Other Narcotics, Estimates for Greater Boston, 1994-2001



Source: Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration. USDHHS.

⁴ Source: Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration, US Dept. of Health and Human Services. <http://dawninfo.samhsa.gov>. DAWN is a national public health surveillance system that monitors trends in drug abuse related emergency department visits. Local estimates are derived from a sample of hospitals in 5 counties in the greater Boston area. Each drug for a reported case is called a "mention." One drug-related ED visit can have up to four specific substances listed. DAWN data are not collected in other areas of Massachusetts.

TREATMENT AND PREVENTION⁵

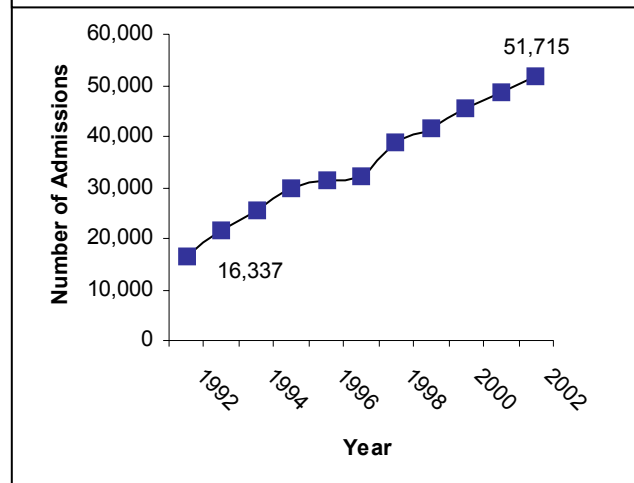
TREATMENT FOR ADULT HEROIN USERS

- In 2002, there were 51,715 admissions among Massachusetts adults (ages 18 and over) for substance abuse treatment services who reported having used heroin. This represents a 17% increase between 1999 and 2001, and an overall increase of 216% from 1992 through 2002.

PATIENT CHARACTERISTICS FOR 2002

- 73% (n=37,721) of patients were male and 27% (n=13,988) were female.
- Over one third of treatment admissions in 2002 were among persons between the ages of 30 and 39 (n=19,041); the mean age was 33.6 years.
- 65% of patients were white, 9% were black, and 22% were Latino.
- 66.7% of patients reported injection drug use during the past year.
- 87.9% were unemployed, 24.7% were homeless, and 24.3% had received prior mental health treatment.

Figure 7. Admissions to Substance Abuse Treatment Services in MA: Adult Heroin Users, 1992-2002



Source: Bureau of Substance Abuse Services, Management Information System, MDPH.

RESOURCES

**Massachusetts Department of Public Health
Bureau of Substance Abuse Services**
250 Washington Street, 3rd Floor
Boston MA, 02108
Tel. (617) 624-5111
Fax (617) 624-5185
TTY (617) 536-5186
www.state.ma.us/dph/bsas/BSAS.htm

**Massachusetts Department of Public Health
Center for Health Information, Statistics, Research & Evaluation**
Injury Surveillance Program
2 Boylston Street, 6th Floor
Boston MA, 02116
Tel. (617) 988-3317
Fax (617) 988-3331
www.state.ma.us/dph/bhsre/isp/isp.htm

**Substance Abuse and Mental Health
Services Administration**
www.samhsa.gov
Center for Substance Abuse Prevention
Tel. (301) 443-0365
www.samhsa.gov/centers/csap/csap.html
Center for Substance Abuse Treatment
Tel. (301) 443-5700

**National Clearinghouse for Alcohol and Drug
Information (NCADI)**
Tel. 1-800-729-6686

**Massachusetts Community Health Information
Profile (MassCHIP)**
www.masschip.state.ma.us/
Tel. 1-888-MAS-CHIP
(in Massachusetts)

⁵ Source: Bureau of Substance Abuse Services Management Information System (SAMIS), MDPH. SAMIS includes data provided by all BSAS licensed substance abuse treatment programs. Data reflect admissions, not patients. Patients can have multiple admissions.

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FOR INFORMATION ON SUBSTANCE TREATMENT AND SERVICES:

Contact the Department's
Bureau of Substance Abuse Services on-line at

www.state.ma.us/dph/bsas/BSAS.htm

OR

Call the

MA Substance Abuse Information and Education

HELPLINE @

1-800-327-5050